DNR/PEI FILE EXCHANGE NOTES

June 1, 2005

Attendees:
Vern Schrunk—DNR
Ken McFadden—PEI
Jim Humeston—DNR

- **POLICY/GUIDANCE AND/OR JUDGMENT ISSUES:**

9LTB50, F. Onawa 76, Onawa, SMR reclass L2N/ with Appendix RT2 and T2 revisions, Recommend reject. (Rev- KP/ QA-KM /with TG disc)

Background: The above referenced site was originally classified as high risk in the department's 9/16/02 letter. The department concurred with the low risk reclassification (refer to the department's 11/2/04 letter) presented in the 2002 SMR. However, A low risk monitoring certificate was not issued and the SMR report itself was rejected with deficiencies (GW benzene increased >20%, sim exceeded, T2 reeval necessary). The SMR received on 3/4/05 recommends the site be reclassified to "no action required". However, another >20% benzene increase recorded, sim exceeded, MW1a flagged, RT2 was not completed for the recent increase (and due to site specifics, whether another RT2 is necessary or required open to discussion/arguable) Refer to file and SMR/RT2 report for specifics.

As presented in the draft RP letter:

Note to DNR: "Accept" letter format was considered because if the Tier 2 is remodeled due to 20% increase (again) at MW-1A, MW-2 remains the groundwater benzene source (due to highest of last two samples) and vapor sample collected passed. Refer to issue #1 in the "do NOT require" section.

Upon review of the report and file information, we cannot reclassify the site at this time. **For DNR review:** The site remains classified **low risk**. The department is issuing a Monitoring Certificate to measure changes in contaminant levels and migration of the contaminants. **Annual monitoring** is required during the third calendar quarter. DNR rules require you to retain a certified groundwater professional to conduct all site monitoring activities. A Site Monitoring Report (SMR) must be submitted to DNR within 30 days after each sampling event. The next SMR must be submitted by October 30, 2005.

The following deficiencies were noted during the review of the SMR/Revised Tier 2 and must be addressed in association with the next SMR submittal. Be aware the comments and problems noted below may affect pathways, receptors, risk classification, site-specific target levels (SSTLs), and the proposed monitoring plan:

Concerning revised Tier 2 portion of the report:

1. **For DNR review:** Issue #1 from the department's 11/2/04 letter. **Inadequate.** The department acknowledges the Tier 2 was rerun with the data collected prior to 12/04 sampling event and the appropriate Tier 2 sections were provided. However, since groundwater benzene concentration in MW-1A increased again more than 20% during 12/04 groundwater sampling and exceeded the simulated value for that location, the Tier 2 should have been rerun using all available data for the site (e.g. 12/04 groundwater data should have been included). Please revise all affected Tier 2 sections, tables and maps as necessary. Note: ensure the risk classification for pathways and receptors presented in the Tier 2 rerun corresponds to the SMR portion of the report (e.g. if soil gas is conducted at the source(s), the appropriate soil gas questions are answered correctly in the software).

Concerning the SMR portion of the report:

1. **For DNR review:** The current risk as "N" in the SMR Groundwater Source Receptor Summary table is questioned. (Refer to deficiency #1 concerning the revised Tier 2 portion of the report and issue #1 in the "do not require correction" section). The Tier 2 reevaluation appears necessary and is required. The current risk

should be "L" pending Tier 2 remodel and/or additional groundwater or vapor monitoring. Please revise the SMR Groundwater Source Receptor Summary table.

2. **For DNR review:** The SMR Groundwater/Soil Leaching monitoring plan summary table is questioned. The table lists all wells under "NFA GW/SL Monitoring Results" while the computed chemical (benzene) risk remains "L" for PCS and PSS pathways. The department acknowledges "Receptor current risk" was set to "N" by your CGP which results in the software listing monitoring wells under the "NFA GW/SL Monitoring Results" section with the monitoring plan. Refer to aforementioned issue #1. Please provide an updated SMR Groundwater/Soil Leaching monitoring plan summary table. (Note: The attached monitoring certificate is based on the "chemical risk" computed as "L" and reported as such in the SMR Groundwater/Soil Leaching monitoring plan summary.

   Refer to draft RP letter for def's 3 and 4.

   The following additional problems do **NOT** require correction in this report, but are identified below for the attention and benefit of your consultant.

1. **For DNR review:** The reclassification of the Groundwater Vapor to Enclosed Space pathway through soil gas sampling is questionable and appears premature. The department acknowledges SG-2 was installed at the groundwater source MW-2 identified by the software as 6,620 ppb benzene (11/01/02). However, soil gas sampling at SG-2 was conducted 12/9/04, the same day as groundwater samples were collected from monitoring wells at the site (MW-1A, MW-2, MW-3 and MW-4). Groundwater benzene concentration in MW-1A increased again (since 2002) more than 20% (to 6,140 ppb, 12/9/04) and exceeded the simulated value for that location while benzene concentration in MW-2 decreased to 1,810 ppb (12/9/04). While technically MW-2 is identified as the groundwater source (and apparently will be if the revised Tier 2 reevaluated using current data), the department questions whether soil gas results at SG-2 are representative to clear the Groundwater Vapor to Enclosed Space pathway. The department questions whether soil gas sampling is appropriate for reclassification of the pathway since the groundwater plume apparently has not reached a steady state condition. Also, note that steady and declining criteria have not been met for MW-1A, MW-2 and MW-3. Meeting only SSTLs is insufficient to reclassify the site. Refer to deficiency #1 in the "require" section above. Be advised the department requires justification for representativeness of soil gas samples.

   For your review and consideration. ((While sensitive VES receptors (CSR and SSR) are present, and may be encompassed by the RID plume from MW1a if the T2 is rerun, resulting in HR, the existing soil gas (gw vapor sample at MW-2) would appear to clear the entire GVES pathway if the T2 is rerun. Additionally, Issue 1 in the 'do not require' section, if moved to 'require" section, may be problematic).

   Files returned today.

   7LTD61, Carney Oil Company, Crystal Lake, SMR reclass HN2 , Accepted HR (2nd rev) / CADR due with def's TBA addressed (note 9/14/00 and 5/10/01 DNR letters rejected previous submittals), A CADR was not received. Recommend reject. (Rev- SS/ QA-KM)

   As presented in the draft RP letter:

   1. Performing a revised Tier 2 evaluation simply for the purpose of obtaining a "no action required" risk classification is **inappropriate** and **unacceptable**. Moreover, the revised Tier 2 evaluation is **unwarranted** and **unjustified**. The department acknowledges the "rationale" presented in the Evaluation of Analytical Data (App. 1). Regardless, steady and declining criteria have **not** been satisfied in *five of the six* groundwater monitoring plan wells (pp. 12).

      Although groundwater benzene and toluene concentrations have declined dramatically at the subject site, sufficient groundwater monitoring has **not** been performed – i.e., exit monitoring criteria have **not** been satisfied. Refer to deficiency 3 (p. 2 of this letter). Furthermore, while less than applicable target levels, note the dramatic increase in groundwater waste oil contamination in MW-6. In addition, refer to the DNR

web page entitled "Site Monitoring Report General Comments" that was posted on the Internet 1/30/02. Modify the software, ensuring that the December 2002 groundwater contamination data and all subsequent data are entered into *only* the **SMR** portion of the software file, and revise all affected report sections.

NOTE: When requesting a reclassification, all report sections pertaining to risk (i.e., report cover page, receptor summary tables, Site Reclassification section, and Evaluation of Analytical Data) must be in agreement. Additionally, only one copy of each section/page should be submitted (see pp. 7). Finally, with respect to the vague and ambiguous statement regarding the previous consultant's data (App. 1), it is unclear what point your groundwater professional is attempting to make.

2. Given the previous deficiency, additional plastic water line sampling must be performed. Refer to the DNR web page entitled "Plastic Water Line Sampling" that was posted on the Internet 8/2/00. Sample both high risk plastic water line receptors. Revised Utility Company and Sanitary Sewer Notifications should also be submitted, and a Water Supply Notification should be provided. Refer to the DNR web page entitled "Water Supply Notifications" that was posted on the Internet 4/20/04.

3. Sufficient groundwater monitoring has **not** been performed.

   a. **For DNR review:**

      The additional transition/guard wells for monitoring **high risk non-drinking water well, plastic water line, and residential sanitary sewer receptors** – as proposed in the July 2002 Tier 2 Report (Groundwater Monitoring Plan Comments/Justification section and App. 14) – were **not** installed. The referenced **high risk** receptors are *downgradient* from the groundwater benzene and toluene sources. Moreover, the decreased groundwater contamination concentrations indicate **not only** the possible occurrence of natural attenuation, but also potential plume migration. **Therefore, the proposed monitoring wells must be installed and exit monitoring criteria must be satisfied therein prior to receiving a "no action required" certificate.**

      NOTE: If possible, the proposed monitoring well south of First Street should be located approximately 10-15 ft south of the mapped location in the referenced Tier 2 Report.

   b. Monitoring wells MW-8 and MW-11 must be reconstructed and sampled during the next round of groundwater sampling, if they are unable to be located. Repeated failure to locate a monitoring plan well – e.g., that described in the Evaluation of Analytical Data (App. 1) – is **not** valid justification for failing to sample a well.

   c. A cursory examination of the Groundwater Monitoring Plan Summary table (pp. 12) indicates inappropriate wells are identified as transition and/or guard wells for high risk receptors (e.g., monitoring well MW-11 for non-drinking water well NDW-1). Only wells *within* the secondary area – preferably *within* the primary (rectangular) area – should be selected in the software for monitoring high risk receptors. Modify the software and revise all applicable Tier 2 and SMR sections.

Refer to file deliverables and draft RP letter for additional def's. For your review and Files returned today.